Rec'd March 20th
Ans March 23

Denver C.T. Mar. 10. 1863

Dr Geo Engelmann
St Louis Mo.

Dr Sir

Your favor of Feby is recd. I send you herewith a copy of all my notes of observations taken during the month of Jany 1863 — My only detached thermometer is a very common one. I have compared it with the standard Attached Ther. by detaching the latter from the Barometer & find it to agree as you might suppose varying from 1/2 to 1 degree. I will not only be obliged to you if you will send me by mail an open air Thermometer which I can rely upon ~~but will~~, but will send you all Expense of buying & sending. Please procure one of sufficient diameter of tube to admit of the mercury's readily settling to the bulb end —

Very truly yours
F. Melcase

2170 3 40 205 150 20 125 155 185 250 155 110
90 80 35 90 390 115 150
40 20 60 100 275
3,25 220 115 175 170 290
110 13 186 1800 15 260 275 720 170
37 235 95 580 80 170 280
78 12 475 75
1825 325
110
135
245

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

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Recd. April 17th

Denver C.T. Apr 7, 1863

Doct G. Engelmann
St Louis Mo.

Dr Sir

Your letter of March 23d is recd. I am much obliged for the valuable information you give. In regard to health I think I never have lived in so healthy a climate, and this is true in the settlements in the highest altitudes

Mr. D. C. Collins I know he has quite a taste for Natural Science & what facts he gives you may rely on. His address is Mountain City (P.O. the town is called Central City) C.T.

I dont know that I can explain why the ~~open air~~ attached Thermometer is lower than the open air Ther. The Barometer is in a box say 4"x4"x40" with door fastened to the wall of my house in a piazza that is always shaded. The open air Ther. is in the same box. The wall of the house is east and adjacent to a bed room in which there is no fire —

Fruit trees have not been cultivated here yet sufficiently to know at what altitude they will flourish. A few crops of cereals have been grown near Golden City, at an Elev-

tion say of 6000. ft —

I am obliged for your favorable mention of my name to the St Louis Academy of Science. and if I remain here shall be glad to contribute any facts coming within my knowledge to their fund of Science. You know ere this that I am removed not for cause I am happy to state but at the request of a political enemy S. W. Ashley of Ohio. — Dr. Parry has sent me an open air ther. which I recd a few days ago in good order

I have the work you mention "Smithsonian tables" left with me by Lieut. Barthond of Col. 2nd Regt.

I have not as yet ~~made~~ taken hourly observations to determine the daily Barometric Curve.

I give below the observations 28th 29th & 30th Mch. for your consideration

Sat. 28.	7 am	24.900.	at Bar. 32.5	de Th. 34°	Clear
	7 PM	24.964	56.	63	do
	11 "	24.964	45	48	Cloudy
Sun. 29	8 am	25.070	41	44	Clear
	1 PM	25.092	60	65	Cloudy. light sprinkle of rain at 5 PM

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Nov 30th	7 am	25.224	35.	38	Clear
	1 P M	25.286	High Wind from W.	56. 60.	Snow Storm in the Mountains
	10 "	25.274	46.	48.	Cloudy

At the time of the high wind the Bar. stood higher than before since I have been observing & for 2 days preceding you will notice it was far above the mean —

Our high winds here are from the west. I think the heated air of the plains rising more rapidly than the cold air comes down from the mountains may account for some of the changes & the two currents meeting may show an extreme pressure on the Barometer that the weather does not show —

The wind comes down the gulches in a perfect hurricane sometimes. Golden City at the mouth of the Cañon of Clear Creek had over 20 of its buildings blown down by such a wind storm in Nov. 1861. I was out in the same wind storm — Colorado City similarly situated on the Fontaine qui bouille Cr. was partly blown down the year before —

Our rain & snow nearly all comes from the Plains — The prevailing winds are from the west & northwest but the ~~Extreme high~~ general altitude of the Sierra Range intercepts

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and precipitates nearly all the moisture with which the moving air is freighted before it reaches us

I am very truly Yours

F. McLean